

MARINE CORPS WARFIGHTING LABORATORY

Lightweight Countermortar Radar (LCMR) provides forces with the ability to locate the origin of indirect fire attacks with a lightweight, compact system.

Background:

The LCMR has been a development for the Special Operations Command (SOCOM) to field a man-portable Countermortar radar that could accompany their forces. The Marine Corps Warfighting Laboratory kept apprised of these developments and as Operation Iraqi Freedom progressed, watched for opportunities to support the committed Marine forces. When the I MEF Targeting Cell made their needs known, MCWL secured the loan of two LCMRs to I MEF. Based on this experience, the Commanding General, MCWL committed end-of-year funding to acquire an additional set for the Marines in OIF.

Description:

The LCMR is a compact, radar with the unique ability to locate firing systems over 360 degree span – most radars can only “view” 90 degrees or less at a time. The maximum range of this radar is 7,000m and it can locate firing systems to an accuracy of 100m. LCMR also predicts the point of impact. The system can be powered by vehicle batteries for several hours and has proven to be a valuable capability to the Marines undergoing nearly daily indirect fires attacks.

Experimental Approach:

MCWL has provided one system to I MEF for extended user evaluation.

Benefits:

- Additional capability for fires detection and counterfire targeting.
- Only available radar with 360 degree coverage.
- Available quickly for experimentation without the extensive requirement verification process.
- Point of origin and predicted point of impact for warning and engagement
- Rapidly available force protection

LIGHTWEIGHT COUNTER MORTAR RADAR

fact sheet



Deliverable Products:

- LCMR set to committed Marine Forces.
- Employment data and improvements from use.

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